

Title (en)

WET-CHEMICAL METHOD FOR PRODUCING A BLACK SILICON SUBSTRATE

Title (de)

NASSCHEMISCHES VERFAHREN ZUR HERSTELLUNG VON EINEM SCHWARZEN SILIZIUMSUBSTRAT

Title (fr)

PROCÉDÉ CHIMIQUE PAR VOIE HUMIDE DE PRODUCTION D'UN SUBSTRAT DE SILICIUM NOIR

Publication

EP 2697820 B1 20180404 (EN)

Application

EP 10830745 A 20101111

Priority

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- US 2010056417 W 20101111

Abstract (en)

[origin: WO2011060193A1] A wet-chemical method of producing a black silicon substrate. The method comprising soaking single crystalline silicon wafers in a predetermined volume of a diluted inorganic compound solution. The substrate is combined with an etchant solution that forms a uniform noble metal nanoparticle induced Black Etch of the silicon wafer, resulting in a nanoparticle that is kinetically stabilized. The method comprising combining with an etchant solution having equal volumes acetonitrile/acetic acid : hydrofluoric acid : hydrogen peroxide.

IPC 8 full level

H01L 31/0236 (2006.01); **H01L 21/306** (2006.01); **H01L 31/18** (2006.01)

CPC (source: EP US)

H01L 21/30604 (2013.01 - US); **H01L 21/67086** (2013.01 - EP US); **H01L 31/02363** (2013.01 - EP US); **H01L 31/1804** (2013.01 - EP US); **H01B 1/00** (2013.01 - EP US); **Y02E 10/547** (2013.01 - EP US); **Y02P 70/50** (2015.11 - EP US)

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